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| 10/597,318 | 07/20/2006 | Tiziano Barea | GIAMBROCONO-255792 | 9279 |

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NEW YORK, NY 10177

| EXAMINER |
|---|
| STAFIRA, MICHAEL PATRICK |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2886 | |

| NOTIFICATION DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/597,318 | BAREA, TIZIANO | |
| | Examiner | Art Unit | |
| | /Michael P. Stafira/ | 2886 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *response dated 9/9/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsawa ('958) in view of Allen et al. ('176).

**Claim 1**

Ohsawa ('958) discloses at least one light emitter element (Fig. 4, Ref. 54) and at least one receiver element (Fig. 4, Ref. 56), said emitter element (Fig. 4, Ref. 54) generating a light signal which strikes said thread (Fig. 2, Ref. Y) before being sensed by the receiver element (Fig. 4, Ref. 54) which, based on this sensing, defines a characteristic of the thread (Fig. 2, Ref. Y) such as its movement or its stoppage, a dimensional defect or another dimensional characteristic (See Abstract), wherein, interposed between said light emitter element (Fig. 4, Ref. 54) and said receive element (Fig. 4, Ref. 56), light transparent means (Fig. 4, Ref. 44) which are encountered

by the light signal after it has interacted with the thread (Fig. 2, Ref. Y), and which act as a thread guide, wherein said light transparent means (Fig. 4, Ref. 44) are of ceramic material (Col. 6, lines 36-40).

Ohsawa ('958) substantially teaches the claimed invention except that it does not show an the light emitter elements are at least two in number and are oriented such that the thread is always struck by the light emitted by at least of them. Allen et al. ('176) shows that it is known to provide an at least two emitter elements (Fig. 3, 4, Ref. 50-53) so that a light emitter always strikes the thread (See Fig. 3, 4) for an optical thread sensor. It would have been obvious to combine the device of Ohsawa ('958) with the optical emitters of Allen et al. ('176) for the purpose of providing uniform illumination of the thread, therefore reducing errors in the optical measurement.

**Claim 2**

Ohsawa ('958) discloses wherein said ceramic material contains at least one of the following: alumina, zirconium, sapphire, that is the ceramic material is a transparent textile ceramic (Col. 6, lines 36-40).

**Claim 3**

Ohsawa ('958) discloses that wherein said light transparent means (Fig. 4, Ref. 44) are in contact with the thread (Fig. 2, Ref. 2)(See Fig. 2).

**Claim 4**

Ohsawa ('958) discloses the light transparent means (Fig. 4, Ref. 44) comprise an at least partly annular body (See Fig. 4), the monitored thread (Fig. 2, Ref. Y) being positioned within the aperture (See Fig. 2) of this body, said body being supported by the device casing (Fig. 1,

Ref. 10, 12, 80) which is shaped such as to lie at least partly about said aperture of said body of the light transparent means (Fig. 4, Ref. 44).

**Claim 5**

Ohsawa ('958) discloses casing comprises two coupled-together parts (Fig. 1, Ref. 10, 12) which retain between them the body of the light transparent means (Fig. 4, Ref. 44).

**Claim 6**

Ohsawa ('958) discloses the parts (Fig. 1, Ref. 10, 12) of its casing present opposing edges (Fig. 3, Ref. 24, 26) able to be fitted together, within said parts (Fig. 1, Ref. 10, 12) there being positioned an electrical circuit (Fig. 3, Ref. 28) presenting the at least one light emitter element (Fig. 4, Ref. 54) and the receiver element (Fig. 4, Ref. 56), this latter being connected to a microprocessor unit arranged to evaluate each monitored characteristic of the thread (Fig. 2, Ref. Y), in accordance with a preset algorithm on the basis of the light signal received by the receiver element (Fig. 4, Ref. 56)(Col. 8, lines 56-67).

**Claim 7**

Ohsawa ('958) further discloses-wherein the parts (Fig. 1, Ref. 10, 12) of its casing and the support (Fig. 4, Ref. 28, 28') present arms projecting from a main portion and at least partly defining the body of the light transparent means (Fig. 4, Ref. 44).

**Claim 8**

Ohsawa ('958) discloses that wherein these said arms (Fig. 4, Ref. 28, and 28') are mutually opposing and define a corridor in the casing of the device (See Fig. 4).

**Claim 9**

Ohsawa ('958) wherein on the opposing arms (Fig. 4, Ref. 28, 28') there are positioned a light transmitter element (Fig. 4, Ref. 54) and a receiver element (Fig. 4, Ref. 56) which act as an optical barrier arranged to modify, when intercepted, the activity state of the device.

**Claim 10**

Ohsawa ('958) discloses that wherein on at least one of said opposing arms (Fig. 4, Ref. 28, 28') there is positioned a light transmitter element (Fig. 4, Ref. 54) directed towards the receiver element (Fig. 4, Ref. 56).

***Response to Arguments***

4. Applicant's arguments filed September 9, 2009 have been fully considered but they are not persuasive.

Applicant takes the position on page 2 of the response in that the limitation of the claim provide two light emitter elements oriented such that the thread is always struck by one of them and a light transparent means which are transparent to the infrared light so that they do not diffuse the light generated by the transmitter means etc...

Examiner takes the position that the claim limitation only discloses that at least two light emitter elements are oriented so that the thread is always struck by at least one of the emitter elements and further the claim limitations fails to disclose anywhere a transparent means that is transparent to infrared light so they do not diffuse the light generated. Therefore, the combination of Allen et al. ('176) with Ohsawa ('958) was to show that it is well known in the art of thread detection to use more then one light emitter to always strike the thread and therefore the combination reading on the claimed limitations.

Applicant further takes the position on page 2 that the transparent means is ceramic and has advantages over the prior art etc..

Examiner takes the position that the applicant's specification discloses that (Page 8, line 15) the ceramic material can be made of "glass" the same material used in Ohsawa ('958) for it's transparent means, therefore providing the same benefits as disclosed by the applicant and reading on the claimed limitation.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine is that both are measuring the characteristics of thread and therefore the rejection stands as indicated in the above rejection.

## *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Michael P. Stafira/ whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael P. Stafira/
Primary Examiner
Art Unit 2886

November 30, 2009